

Department of Natural Resources
MARYLAND GEOLOGICAL SURVEY
Division of Archeology

File Report Number 169

ARCHEOLOGICAL RECONNAISSANCE OF MARYLAND ROUTE 543 FROM NORTH OF JAMES RUN
TO MARYLAND ROUTE 7, HARFORD COUNTY, MARYLAND

S.H.A. Contract No. H 805-101-471

Report submitted to the Maryland State Highway Administration.

Maureen Kavanagh
23 December 1981

Abstract: Four prehistoric sites and five prehistoric archeological areas were identified during the survey. One prehistoric site may be impacted by Alternate 4A, but it is not considered eligible for the National Register, and no further work is recommended. Investigation of the portion of the Harford Furnace complex within the project area revealed no evidence of structures, but protective fencing and monitoring is recommended for one archeologically sensitive area.

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INTRODUCTION

The present study is an investigation of prehistoric and historic archeological resources which might be impacted by improvements to Maryland Route 543 and/or other associated roads including Route 136. The survey area as originally outlined included portions of the Route 40 corridor as well as three areas in which highway realignments were being examined: near Harford Furnace, Aberdeen and Edgewood (Figure 1). Field reconnaissance was begun, with the area near Aberdeen and the northern one-third of the Route 40 corridor completed. At that point specific highway alternates were received from S.H.A. which are all located within the shaded area near Harford Furnace shown on Figure 1. As requested, the general corridor survey was abandoned and the specific alignments examined. The results of both the initial corridor survey and the specific alignment survey are included in this report as requested by S.H.A.

The project area falls within the limits of Maryland Archeological Research Units 6 and 15 (Figure 2).

ENVIRONMENTAL CONTEXT

The study area lies on the border between two physiographic provinces, the Piedmont and the Coastal Plain (Cleaves et al 1968). In the Piedmont, where the topography is moderately hilly, the area is underlain by metagabbro, amphibolite, and gneiss. In the Coastal Plain the topography has less relief and the underlying formations consist of deposits of gravel, sand, silt, and clay. The entire survey tract (all areas shown in Figure 1) is located primarily in the Bush River drainage; although the northern part is drained by Swan Creek. The watercourses which intersect the survey area range from intermittent streams to the fifth order drainage of the Bush River. Elevations range from less than 20 feet (6 m) a.s.l. in the Coastal Plain to 240 ft. (74 m) in the Piedmont.

PREVIOUS INVESTIGATIONS

The only previous archeological survey which intersects the current project area was the Interstate 95 survey, conducted by Alice Hunt (Hunt and Hunt 1964 a,b). She identified six "sites" in the current project area, but these sites sometimes

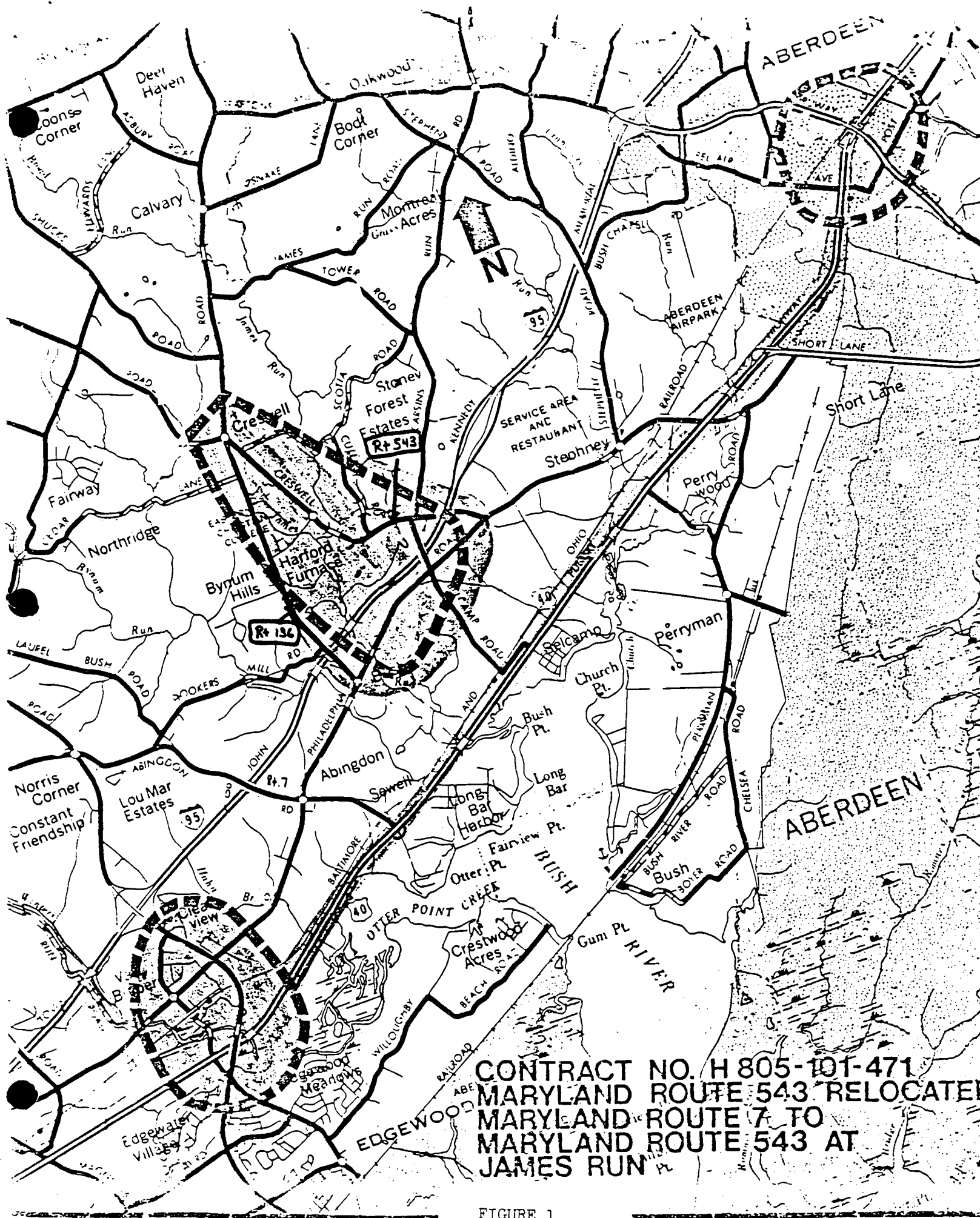


FIGURE 1

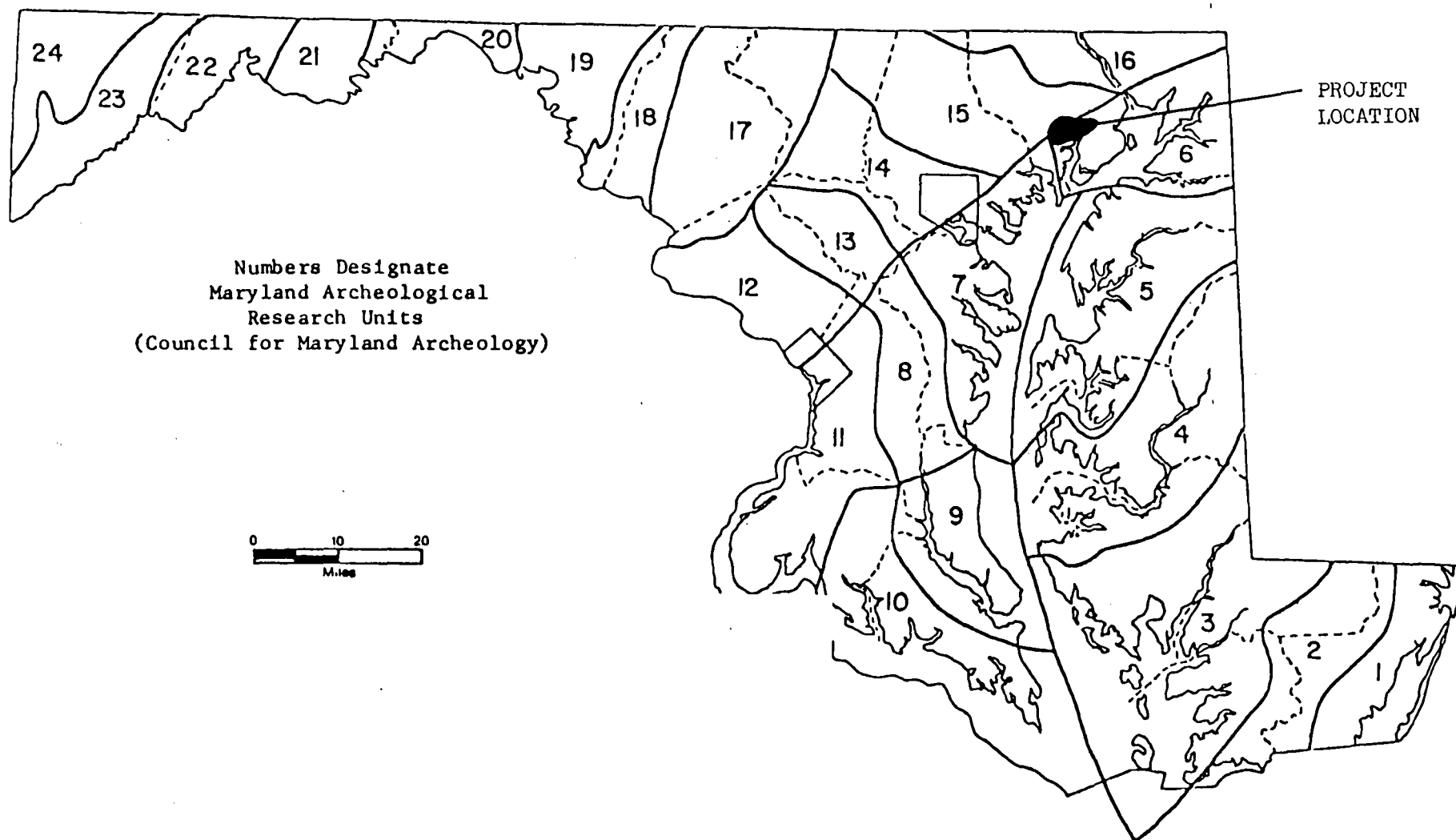


FIGURE 2
PROJECT LOCATION

consisted of single artifacts. According to the investigator: "Except for two quarry sites [outside present study area]..., the localities are not really 'sites,' and I prefer to refer to them as locations. Some of the locations yielded a single artifact; the maximum was six and the average three. Even where several artifacts were found, they had been scattered by the bulldozers or other earthmoving equipment. None of the locations seems to have been used more than briefly" (Hunt and Hunt 1965 b:2).

The six sites identified by Hunt and Hunt within the current study area are shown in Figures 3 and 4. Site 18 HA 48 yielded one projectile point, one midsection of a drill, one tip of a knife, one core chopper, and four fragments of other tools (more than the maximum of six cited above.) Site 18 HA 49 yielded one plano-convex knife and one knife tip. From Site 18 HA 50 the surveyors reported one piece of slag. One projectile point was reported from site 18 HA 51. The site form on HA 52 contained no information on artifacts. From 18 HA 63, one projectile point, one point fragment, and a scraper were reported.

Two other sites were recorded in the Maryland Archeological Site Survey files near the project area. Site 18 HA 4, reported by Paul Cresthull, is described as a "productive" Transitional Archaic site (Figure 5). According to information on the site form, it is also the site of Chilberry Hall, the birthplace of Governor William Paca. Papenfuse et al (1976:35) indicate the birthplace of Paca is in this general vicinity. Site 18 HA 94 (Figure 6) is a stone cellar about 20 feet south of a log cabin in a low area near James Run. Testing around the foundations in 1974 by the Harford County Chapter of the Archeological Society of Maryland revealed debris dating to the early 19th century (1820's-1830's). No features were reported.

In 1977 nearly 22 miles of the Harford County shoreline were surveyed by Wilke and Thompson (1978), and 52 aboriginal sites were recorded. Gardner and Haynes (1978) investigated an aboriginal site on the Aberdeen Proving Ground.

ARCHEOLOGICAL POTENTIAL

Prehistoric Sites

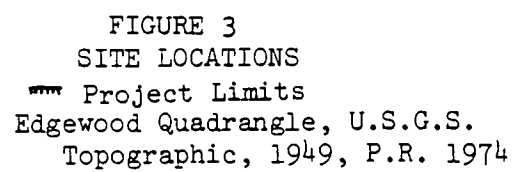
On the basis of the data cited above, the predicted pattern is a large number of small, low density sites, most likely reflecting scattered inland hunting and gathering locations used by groups whose main focus was the bay and estuarine portions of the rivers. These localities would be expected to occur with greatest frequency near a water source, on well-drained to excessively drained, level or gently sloping soils.

Historic Sites

The southeastern part of Harford County participated in the circum-Chesapeake Bay settlement by Europeans in the first half of the seventeenth

39°30'

5763 " SW
ABERDEEN



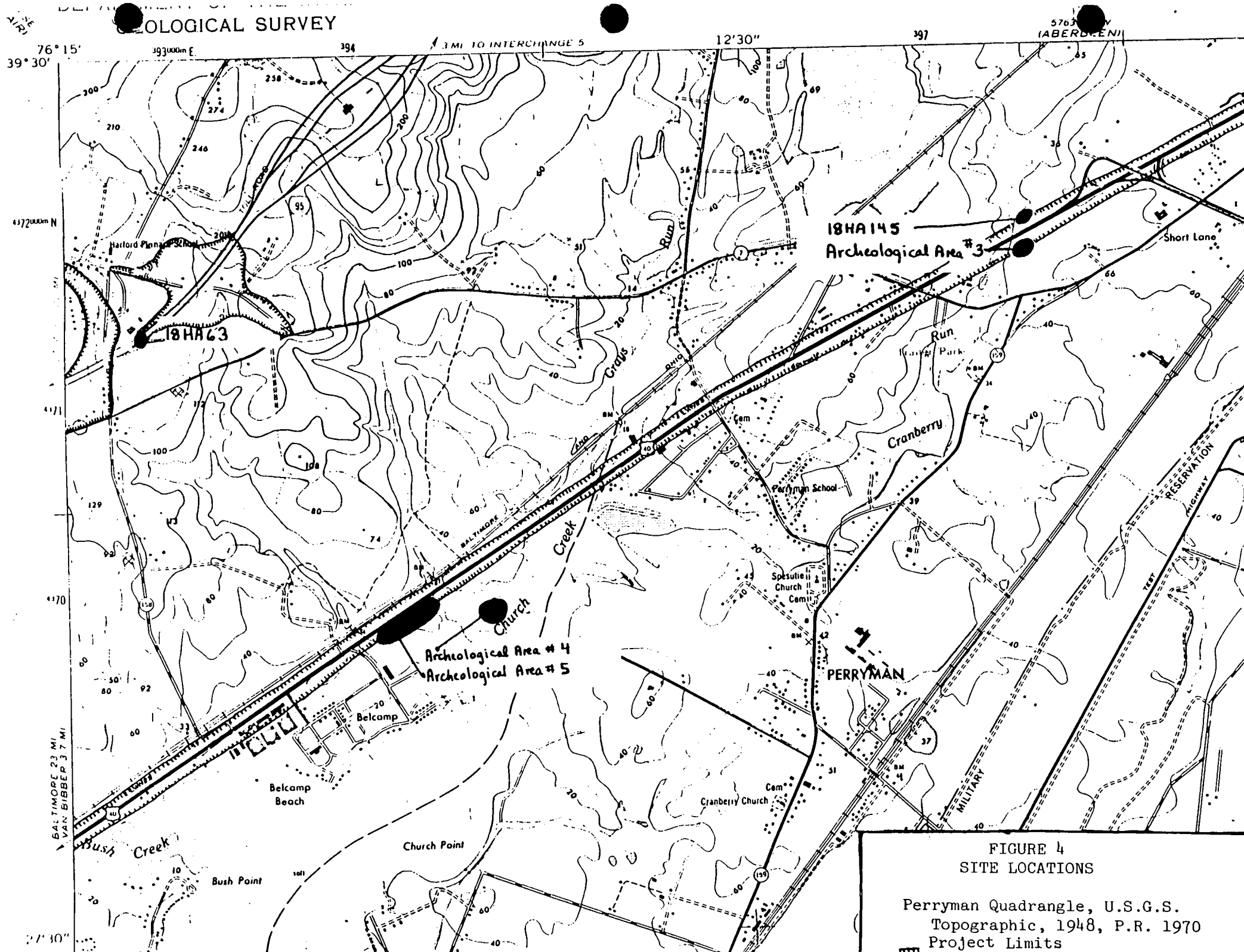


FIGURE 4
SITE LOCATIONS

Perryman Quadrangle, U.S.G.S.
Topographic, 1948, P.R. 1970
Project Limits

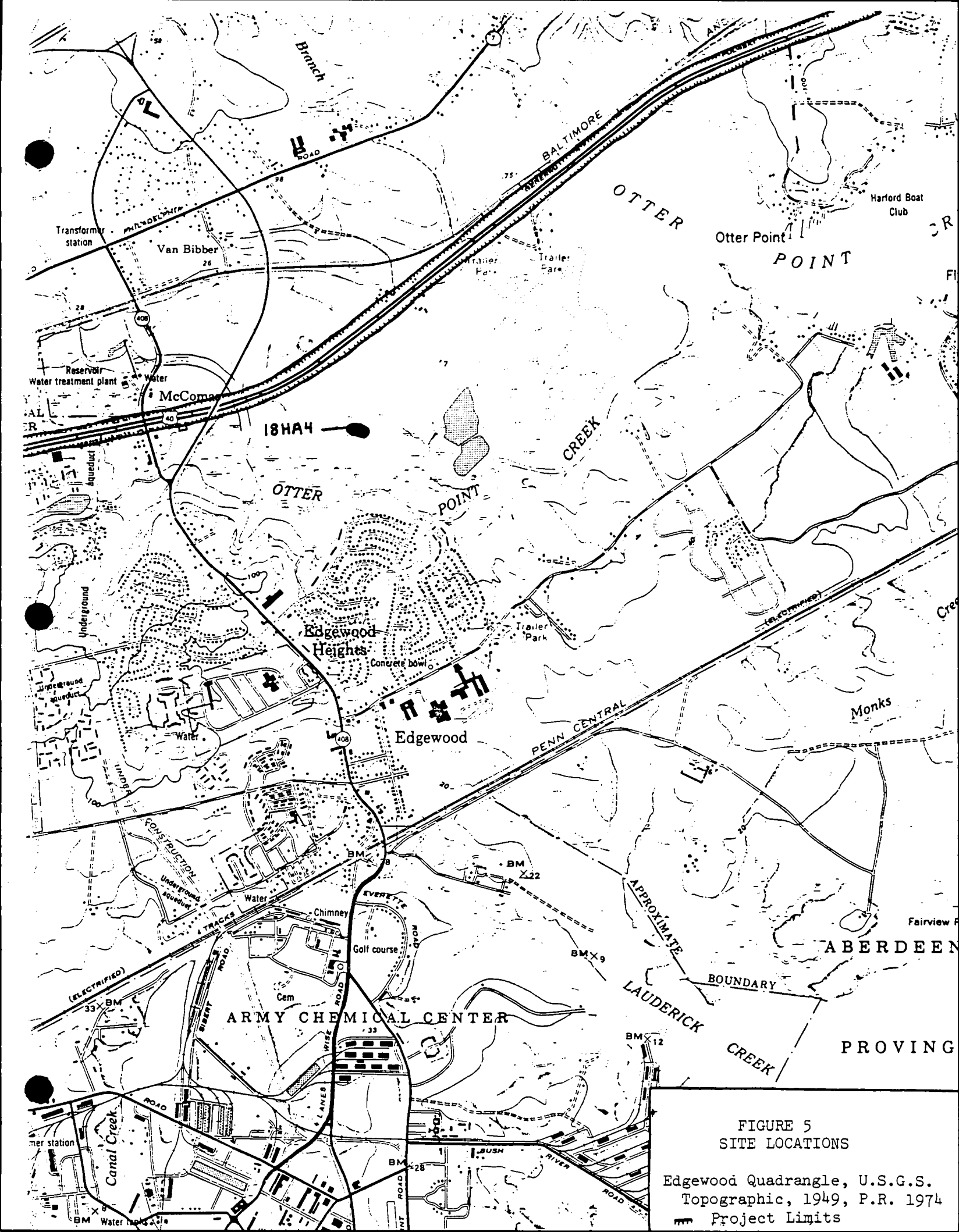
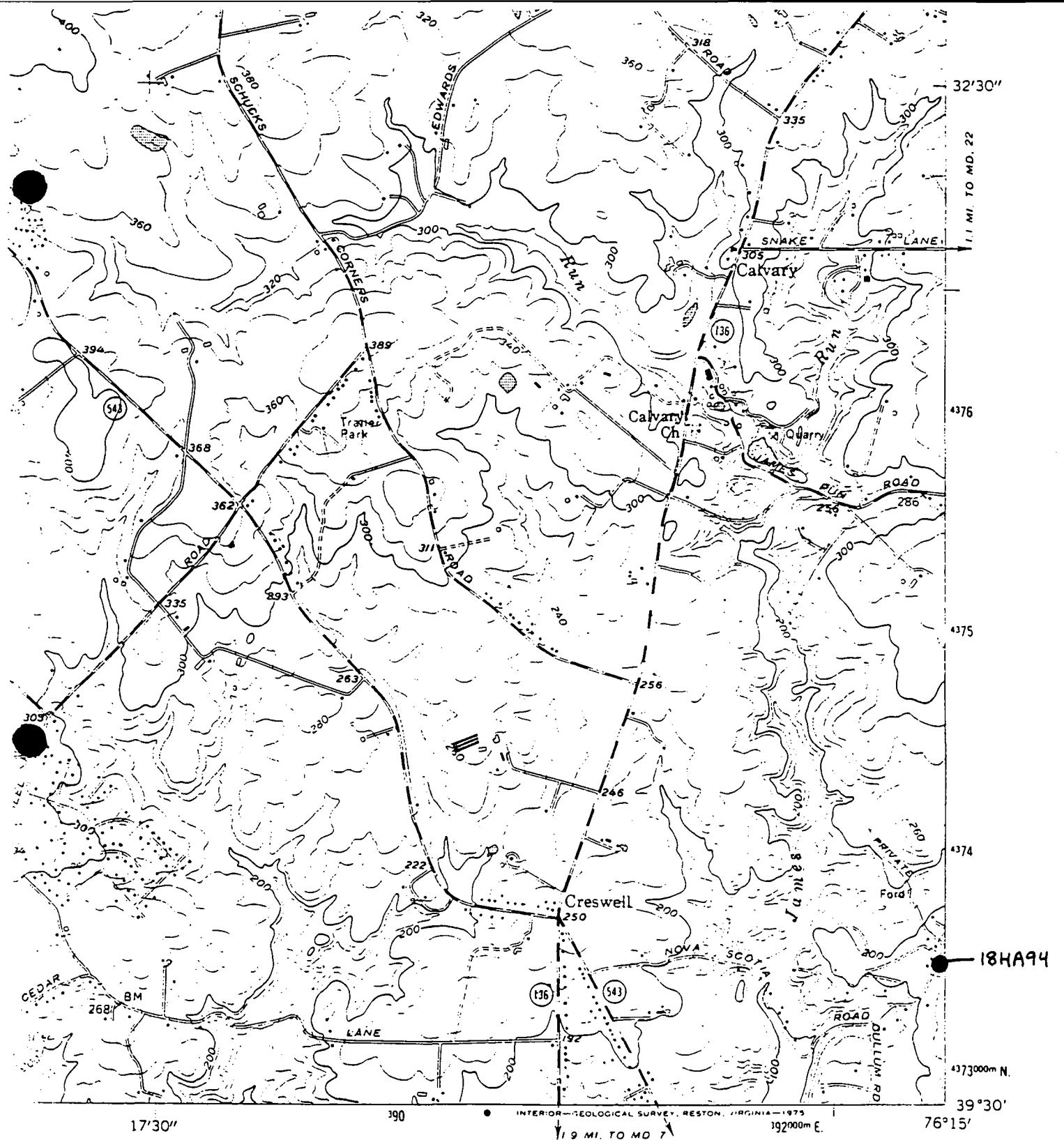


FIGURE 5
SITE LOCATIONS

Edgewood Quadrangle, U.S.G.S.
Topographic, 1949, P.R. 1974
Project Limits



ROAD CLASSIFICATION

Heavy-duty ——— Light-duty ———
 Medium-duty ——— Unimproved dirt ———

U. S. Route ○ State Route

BEL AIR, MD.

N 39°30' W 76°15' 7.5

1956
 PHOTO REVISSED 1974
 AMS 5745 III SE SERIES 743

FIGURE 6
 SITE LOCATIONS

century. As early as 1687 there was a road running through this region along the east coast corridor. In 1787 the post road from Baltimore to Philadelphia was surveyed and straightened, following more or less the present course of Route 7. In 1774, when Harford County was created, the county seat was established at Harford Town, or Bush, which was located near the junction of Route 136 and Route 7 (near or within the study area). This town served as the county seat for nearly 9 years, although it is likely that there was no courthouse constructed here. The town at its heyday consisted of 15 or 20 buildings, including a gristmill, a tan yard, and several inns and stores (Wright 1967:63). It served as county seat until 1782 (Papenfuse et al 1976).

Another historic locale of importance within the study area is the Harford Iron Furnace, known until 1861 as the Bush Furnace or Bush River Iron Works (Singewald 1911:161). The original iron works here antedates 1754. Later furnaces were constructed at the same location in 1830 and 1845, with iron production continuing through 1876 (Singewald 1911:161).

The economic development of the project area received an impetus from the arrival of the railroad. By 1838 the Baltimore and Port Deposit Railroad of Maryland and the Philadelphia, Wilmington, and Baltimore Railroad to the north had been completed and merged to form an east coastline. The Baltimore and Ohio mainline was completed in 1885 (Wright 1967).

Colles Survey of Roads (1789) shows "Hartford" town as a cluster of five structures on the north side of Philadelphia Road. The 1794 Griffith map of Maryland depicts the town of Harford and a mill on James Run near the study area. The 15' U.S.G.S. topographic Gunpowder Quadrangle (1901) shows Harford Town as Bush, with seven structures, the Harford Furnace complex, and scattered farmsteads elsewhere.

Map and documentary research have indicated a high potential for historic archeological sites near the town of Harford (Bush) and near the Harford Iron Furnace, and a low to moderate potential throughout the rest of the study area.

FIELD INVESTIGATIONS

On 16 June 1981 Spencer Geasey and Maureen Kavanagh surveyed the area near Aberdeen and the Route 40 corridor as far south as the Bush River. This was based on the map first provided for the archeological reconnaissance (Figure 1). Two prehistoric sites, HA 144 and HA 145, and five prehistoric archeological areas were located.

On 22 June we received more detailed maps for the Route 543 project. These included specific alternative alignments within the large area surrounding Harford Furnace. On 24 June 1981 these alternate alignments were surveyed. Two prehistoric sites, 18 HA 146 and 18 HA 147, were located. One of these, 18 HA 146, appears to be near or within the limits of the proposed alignment for Alternate 4A. No further work was done on the Route 40 corridor or other parts shown on Figure 1, but that part of the survey is included in this report.

On 21 July 1981, at the request of the State Highway Administration, Dennis Curry, Spencer Geasey and Maureen Kavanagh surveyed a portion of the Harford Furnace complex near James Run. Test pits did not reveal any foundations or other features within the specified area on the west side of Route 543 north of James Run (Figure 9), although testing on the northern tip did produce historic artifacts.

Finally, on 7 August 1981, Maureen Kavanagh performed a field check on one potential historic site which had been noted in the field, to determine its relationship to Alternate 4A. The structure which had been visible proved to be a washed out 20th century bridge over Bynum Run, and was not assigned a site number. The Route 136/Route 7 intersection was also surveyed on this date.

During survey, all exposed surfaces within the proposed alternate routes for improvements were examined. All high potential areas and areas with good visibility were examined on foot. Where landowners permitted, high potential areas were also test-pitted. Along Route 40, where no specific plans were given, survey was conducted within a 70m (200 foot) corridor of either side of the current right-of-way. Intensive test pitting was conducted at the Harford Furnace. (Figures 11-14).

SITE DESCRIPTIONS

Four prehistoric sites, five prehistoric archeological areas, and one historic archeological site were identified during field reconnaissance. One historic archeological site was also tested (Harford Iron Furnace 18 HA 148).

Site 18 HA 144 (Figure 7, Aberdeen quadrangle) had cultural material concentrated in a 30 by 50 meter area on a hillslope about 75 meters from a second order stream running through a low swampy area (tributary of Swan Creek). Artifacts recovered include:

- 1 chert unfinished projectile point (see Figure 10b)
- 1 quartz biface
- 1 quartz projectile point tip
- 3 quartz cores
- 15 quartz flakes
- 2 chert flakes

This site is located on Elsinboro loam, with 5-10% slope. This is a deep-well-drained soil of terraces of the Coastal Plain, moderately eroded (Smith and Matthews 1975:25). The visibility was good (corn field, plowed).

Temporal affiliation of the site is unknown, although the unfinished projectile point resembles the Early Woodland Calvert type, probably ca 1000 BC-AD300 (Stephenson and Ferguson 1963).

Site 18 HA 145 (Figure 4, Perryman quadrangle) is located about 40 meters from the edge of the Route 40 pavement, and about 30 meters from Cranberry Run, a third order tributary of the Bush River. Cultural material was present on a hillslope in an area about 75 by 40 meters (low density). Artifacts recovered from this site were:

- 1 quartz projectile point (possibly Early Archaic)
(Fig. 10a)
- 1 broad rhyolite biface (Fig. 10d)
- 1 rhyolite flake
- 2 chert flakes
- 12 quartz flakes
- 2 quartz chunks

The quartz projectile point, although broken and considerably reworked, has serrated edges, a flared ear on one side, and a rudimentary notched base, resembling the bifurcate points (Coe 1964, Broyles 1971). The soil at this location is Beltsville silt loam, with 2-5% slopes. The Beltsville series of soils is moderately well-drained and occurs on uplands of the Coastal Plain (Smith and Matthews 1975:15). Surface visibility here was good (plowed corn field).

18 HA 146 is located on Bynum Run, a third order stream (Figure 3, Edgewood Quadrangle). The site is located in a plowed field with excellent visibility. Cultural debris was scattered over a 220 by 50 meter area. Artifacts recovered during reconnaissance include:

- 1 Bare Island/Lackawaxen quartz projectile point
(proximal end) (Fig. 10c)
- 1 bifacially worked quartz flake
- 1 large utilized quartz flake with cortex
- 1 quartz chunk
- 11 quartz flakes
- 1 chert flake.

The Bare Island/Lackawaxen point dates to the Late Archaic (ca 3000-2000 BC) (Kinsey 1972:410). This site extends from 30 to 250 meters outside of the right-of-way for I-95, and appears to be within the proposed area of impact of Alternate 4A (Figure 8). Since the site has the potential for adverse impact, it was revisited, but no additional artifacts were observed. The very low density of materials suggests a short-term use of the site. Crops in the field precluded any testing, but its topographical situation suggests that the potential for site burial is very low. Soil at this location is Elsinboro silt loam, 2 to 10% slope, which is a deep, well-drained soil developed on terraces.

18 HA 147 is situated on the edge of a gentle slope adjacent to James Run (Figure 3, Edgewood Quadrangle). Material was observed in an area approximately 75 by 50 meters. Artifacts collected from the location include 8 quartz flakes, and 4 bifacially worked quartz flakes. The soil at this location is Beltsville

silt loam, with 2 to 5% slopes. This is a moderately well drained soil found on uplands of the Coastal Plain. The field was plowed (corn crop) with excellent visibility. The site is rather small and the material was of a low density. No indicators of the time period of occupation were found.

PREHISTORIC ARCHEOLOGICAL AREAS

During the survey for Route 543, evidence of prehistoric occupation was encountered in several areas in which the material lacked sufficient concentration and/or density to be designated as a site. Nevertheless these areas are mapped and described briefly in this report as they constitute part of the total archeological record in this region. The artifacts are recorded as isolated finds.

Archeological Area #1 (Figure 7, 18 HA-X-2). The material was very scattered (over 200 by 200 meters), in a plowed corn field with good visibility. Artifacts recovered were one distal portion of a quartz projectile point, and four quartz flakes.

Archeological Area #2 (Figure 7, 18 HA-X-3). Two quartz flakes were recovered in this area, 75 meters from a first order stream. Although ground visibility was excellent (plowed corn field) no additional artifacts were noted.

Archeological Area #3 (Figure 4, 18 HA-X-4). Two quartz flakes and 2 chert flakes were collected from a 150x80m area on a hillslope about 50 meters from a third order stream. This was also a corn field (plowed) with good visibility. No additional artifacts were observed.

Archeological Area #4 (Figure 4, 18 HA-X-5). Six quartz flakes were collected from an area measuring over 200 meters. This location is situated near a low swampy area which adjoins the Bush River. This area had good visibility (corn field), but no concentration of material was evident.

Archeological Area #5 (Figure 4, 18 HA-X-6). Dispersed cultural material was found on both sides of a gully, within 100 meters of the roadway. Total area containing cultural material is estimated to be about 250 by 100 meters. Material collected here includes:

- 1 quartz core with cortex
- 2 quartz chunks (one with cortex)
- 4 quartz flakes (one with cortex)
- 1 chert flake

This activity area spans an upland area between two small tributaries (2nd order streams) of the Bush River. As with the other 4 areas, ground visibility was good to excellent (plowed corn field).

TESTING AT HARFORD IRON FURNACE

On 21 July, at the request of the State Highway Administration, one portion of the Harford Furnace complex (18 HA 148) was investigated (Figures 3, 9). The area was examined by test pitting, with 60 by 60 cm pits at approximately 15 meter intervals. The area was extremely overgrown so exact locations of the test pits cannot be given, but starting at the southern end near James Run, three pits 15 m apart were dug, and finally on the northern end a series of three test pits were placed closely together (Figure 9). Test pit #1, adjacent to the creek, yielded one whiteware sherd, and all of the pits contained large amounts of slag. The last three pits at the northern end of the test area (Figure 9) yielded artifacts of the mid to late 19th century. Pit #16 contained: 7 whiteware fragments, 5 sherds pearlware, 2 sherds earthenware, 1 kaolin pipe fragment, 1 fragment lightly tinted window glass, 1 fragment clear bottle glass, 1 fragment dark green bottle glass, 1 nail fragment, probably wrought, 13 machine cut nail fragments, 1 nail of undetermined type, 1 iron screw fragment, 1 iron object of unknown use, 2 lumps slag, 1 fragment plaster/mortar, 3 fragments of animal bone, 3 oyster shell fragments, and one red brick fragment. Because this material was found, two additional test pits were placed about 10 meters north and south of Pit #16. Pit #17 yielded 1 wrought nail fragment, 1 oyster shell fragment and one mammal bone fragment. Pit #18, further north of Pit #16 produced 2 sherds of whiteware, 2 nail fragments: 1 cut, 1 wrought, 1 blue-green window glass fragment, 1 oyster shell and two brick fragments. These three pits are on the very northernmost corner of the survey area, and an extensive search in the vicinity of these test pits failed to locate any associated foundations or features on the surface.

INVESTIGATION AT THE LOCATION OF HARFORD TOWN (BUSH)

One of the alternates for the proposed highway improvements included the dualization of Route 136 (Figure 8). On 7 August this area was investigated for historic sites in connection with the town of Harford which was located in this vicinity. The landowner at that location, Ed Pouska, had extensive knowledge of the old town and said that there is no evidence of any foundations of the original town buildings on his property. The ground cover was pasture and lawn. The landowner did not wish us to do any shovel testing. These areas were walked, but no evidence for archeological remains was found.

ASSESSMENT OF POSSIBLE IMPACT

Based on archeological reconnaissance work it appears that one prehistoric site located during this survey, 18 HA 146, would be impacted by the construction of Alternate 4A. Also, some proposed alternates for realignment of Route 543 would impact part of the Harford Furnace complex, but intensive test pitting did not reveal any foundations or other notable features in the proposed impact area.



FIGURE 9

Survey Limits at
Harford Furnace

● = approximate location
of shovel test pits



a

18 HA 145



b

18 HA 144



c

18 HA 146



d

18 HA 145

Material: a) quartz; b) chert; c) quartz; and d) rhyolite.

FIGURE 10
ARTIFACT ILLUSTRATIONS

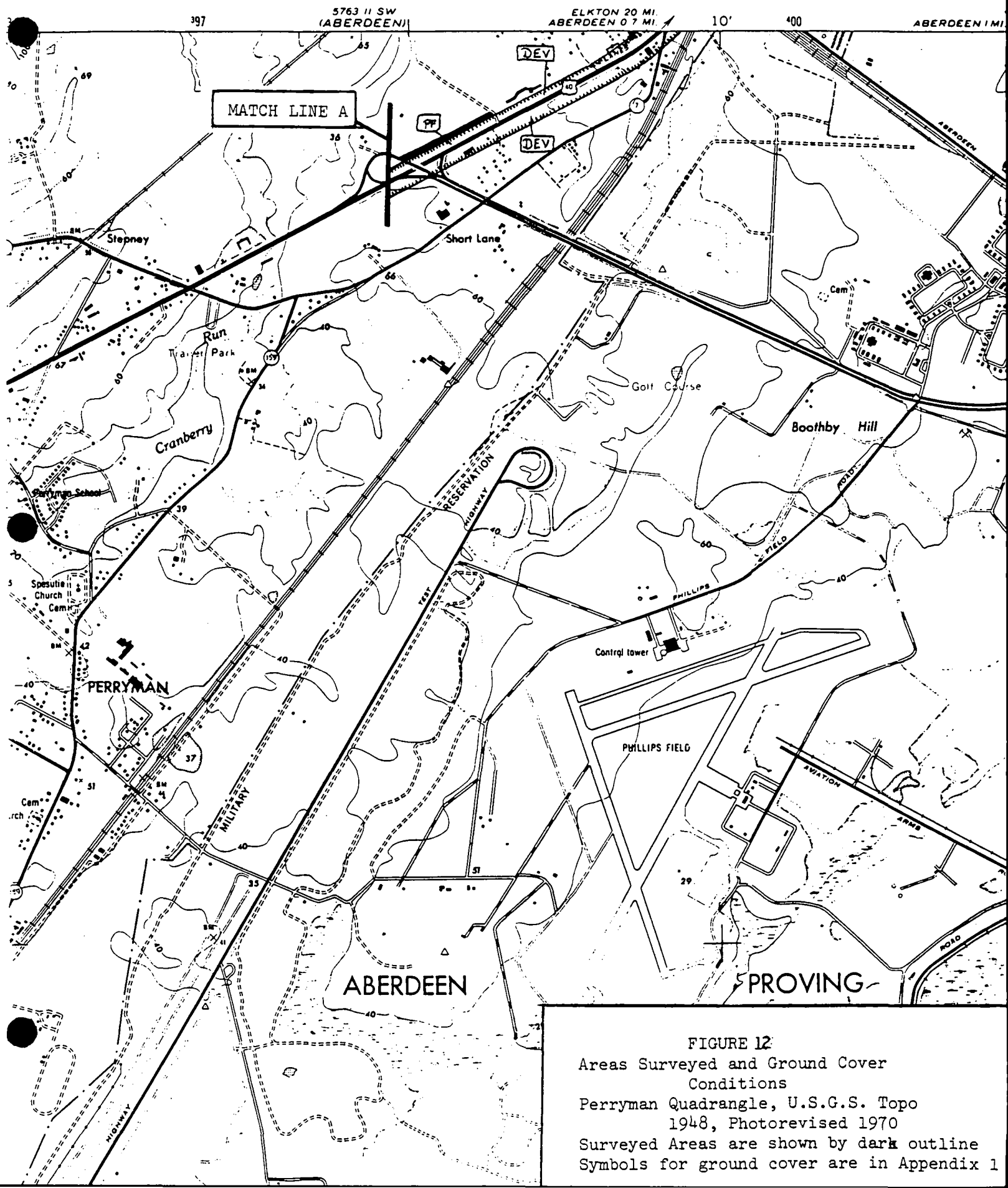


FIGURE 12
 Areas Surveyed and Ground Cover
 Conditions
 Perryman Quadrangle, U.S.G.S. Topo
 1948, Photorevised 1970
 Surveyed Areas are shown by dark outline
 Symbols for ground cover are in Appendix 1

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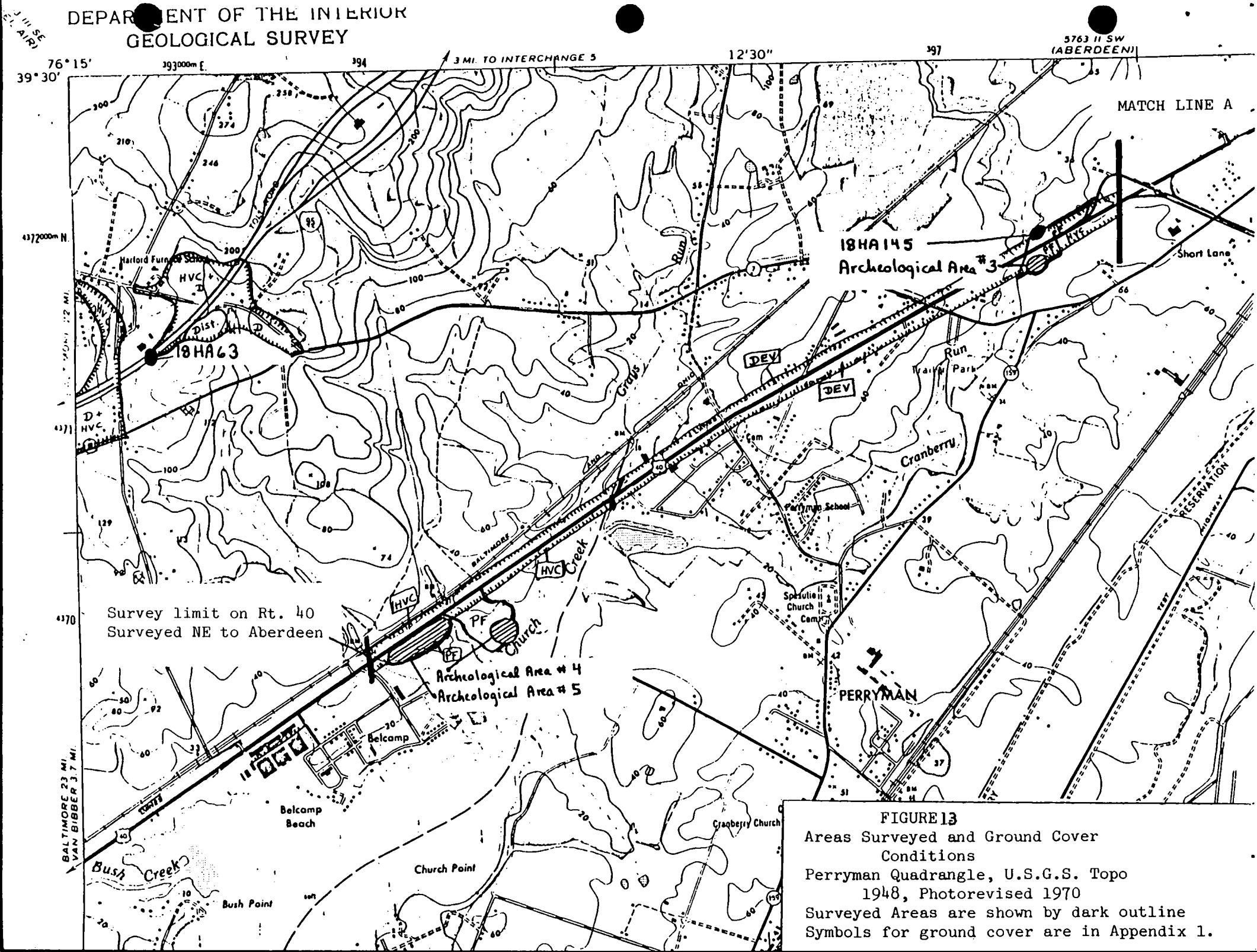


FIGURE 13

Areas Surveyed and Ground Cover
Conditions

Perryman Quadrangle, U.S.G.S. Topo
1948, Photorevised 1970

Surveyed Areas are shown by dark outline
Symbols for ground cover are in Appendix 1.

EDGEWOOD QUADRANGLE

MARYLAND

7.5 MINUTE SERIES (TOPOGRAPHIC)

NE/4 GUNPOWDER 15 QUADRANGLE

1010 000 FEET

3763 11 SW
(ABERDEEN)

17°30"

390

CHURCHVILLE 4.3 MI.
CRESWELL 0.5 MI.

391

CRESWELL 0.5 MI.

76°15'

39°30"

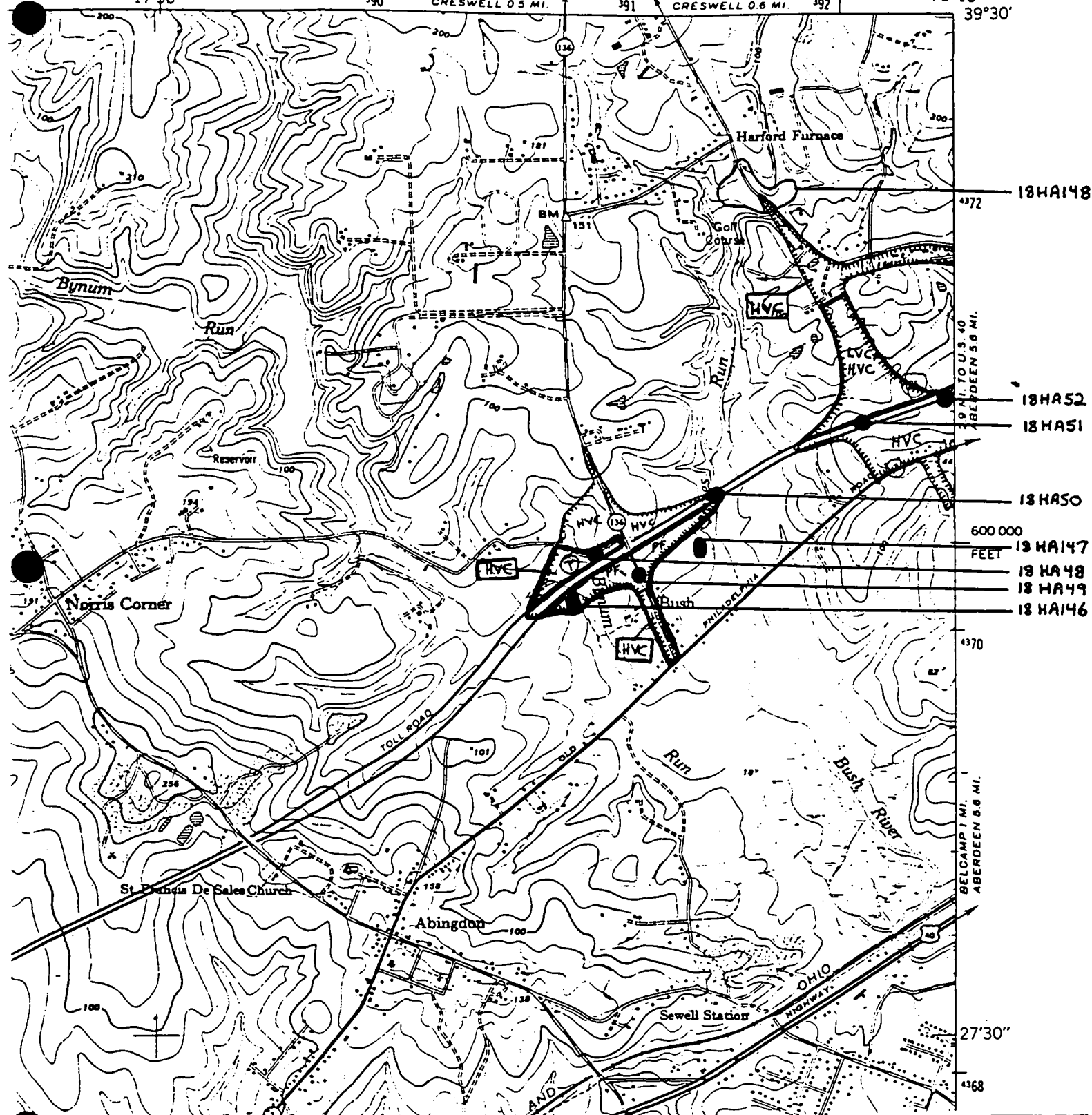


FIGURE 14

Areas Surveyed and Ground Cover
Conditions

Edgewood Quadrangle, U.S.G.S. Topo
1949, Photorevised 1974

Surveyed Areas are shown by dark outline
Symbols for ground cover are in Appendix 1.

TABLE 1

SUMMARY OF SITES

SITE	REPORTED BY	CURRENT FIELD CONDITIONS	LOCATED?	IMPACT		NR ELIGIBLE
18 HA 48	Hunt & Hunt	heavy vegetation	No	Yes	Alternate 4A	No
18 HA 49	"	plowed corn field	No	Yes	Alternate 4A	No
18 HA 50	"	plowed?/heavy vegetation?	No	Yes	Alternate 4A	No
18 HA 51	"	heavy vegetation	No	Yes	Alternate 4C	No
18 HA 52	"	heavy vegetation	No	?	Alternate 4C, 4D?	No
18 HA 63	"	heavy vegetation?/disturbed?	No	?	Alternate 4E?	No
18 HA 4	Cresthull	unknown	No	No	None	?
18 HA 94	Cresthull	"	No	No	None	?
18 HA 144	Kavanagh	plowed corn field	Yes	?	Route 40?	No
18 HA 145	"	"	Yes	?	Route 40?	No
18 HA 146	"	"	Yes	Yes	Alternate 4A	No
18 HA 147	"	"	Yes	No	None	No

Three test pits contained large amounts of mixed domestic and structural debris. This material, which dates to the mid 19th century, is either associated with some nearby structure or alternatively may have been disposed of here. Since the area was very heavily overgrown, even though no evidence of a structure was found, some protective measures should be taken with regard to this location.

Six previously reported sites (Hunt and Hunt 1964) are within the impact area of the proposed alternates. An attempt was made to locate these but none were found. Table 1 summarizes the sites the field conditions, and the potential impact. Given the scarce data on these sites, the small quantity of material reported, and the likelihood that a large majority of these sites were destroyed by construction of I-95, no further reconnaissance work is recommended.

RECOMMENDATIONS

The prehistoric site 18 HA 146 is a very low density site which covers a large area. The preponderance of prehistoric "archeological areas" and small low density scatters encountered on this survey indicates the existence of a fair number of these ephemeral sites, which individually do not appear to have any unique or important characteristics which would make them eligible for nomination to the National Register. Therefore no further archeological work is recommended for this site.

At Harford Furnace, as mentioned above, three test pits on the northern tip of the survey area indicate archeological sensitivity. It is recommended that this area be protected with fencing during construction and monitored by an archeologist to insure that no potential archeological resources are adversely impacted.

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APPENDIX I
(Figures 3 - 14)

KEY for Ground Cover Conditions

- PF - Plowed Field--good visibility
- HVC - Heavy Vegetation Cover--poor visibility
- LVC - Light Vegetation Cover-- 25-75% ground visibility
- DEV - Developed
- DIS - Disturbed